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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,705	12/13/2000	Alain Emile fracois Roesgen	DN1998090USA	3268

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EXAMINER

KNABLE, GEOFFREY L

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 04/24/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

09/719,705

Examiner

Geoffrey L. Knable

Applicant(s)

ROESGEN, ALAIN EMILE  
FRACOIS

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-- The MAILING DATE of this communication appears on the front cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Receipt is acknowledged of the Preliminary Amendment filed December 13, 2000.
2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
3. The disclosure is objected to because of the following informalities:

At page 15, line 22, the referenced serial number "08/805,489" is believed to be in error. In light of page 37, line 13, it appears that this should be --08/865,489--.

Appropriate correction is required.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 1-4, separate reference is made to the "carcass" and a "radial ply structure", this raising some potential for confusion as it is not entirely clear how the carcass and "radial ply structure" relate and in fact without providing any reference to a carcass, it is not clear that the radial ply structure actually is for the carcass, i.e. is a radial ply carcass structure as opposed to any other ply with radial cords. Clarification is required.

In claim 1, line 3, reference is made to "one or more inserts" – it however is not clear what the structure and/or function and/or location of these is, this rendering it difficult to determine the scope of protection afforded by this language. As it is assumed that these are the sidewall run-flat inserts, it is suggested this be reflected in the claim.

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Claim 2 defines that the underlay is “disposed radially inward of the belt structure”, this seemingly intended to further limit the relative location for the underlay. Claim 1 however already defines that the underlay is between the belt structure and radial ply structure and thus it seems implicit or inherent in this requirement that the underlay is radially inward of the belt structure. Clarification is therefore required of what this requirement adds that is not already implicitly defined in claim 1.

Claim 3 is indefinite as it defines a grouping using Markush type language but rather than referring to the group as “consisting of”, it defines “consisting essentially of” – this is considered to be improper Markush group language and raises some ambiguity in determining the scope of the grouping. It is suggested that “essentially” be deleted.

In claim 5, no antecedent has been established for “the circumferentially oriented cords...”.

Claim 6 defines that the underlay “separates” the belt structure from the ply structure whereas claim 1 already defines that the underlay is “between” the belt and ply structures. It is not clear what additional requirement beyond the already present requirement that it be in between the two structures is being defined by this requirement that the underlay “separates” the two. In other words, it is not clear how or whether claim 6 further limits claim 1.

In claim 7, the phrase “most preferably” renders the scope of the claim indefinite – it is suggested it be deleted.

Claim 9 is indefinite as it is not clear how the “radial plies” referred to relate to those already defined in claim 1 – are they the same or some additional ply? If they are

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the same, this should be clearer from the claim language (e.g. "said..."). Further, the phrase "at least one or more" is awkward and redundant.

In the preamble of claim 10, reference is made to forming a "run flat tire" whereas there is no other mention or description or step of forming a run-flat tire in the body of the claim. To avoid potential confusion, it is suggested that the steps or steps be modified to explicitly define or refer to a run flat tire and/or its components.

In claim 10, step (b), no antecedent has been established for "the fabric underlay". Also in step (b), it would be clearer if the wrapping of the ribbon were defined as e.g. a plurality of times – otherwise, there is some question as to whether this reads on a ribbon wound a single time and spliced, this apparently not being the intent particularly in light of claims 11 and 12 referring to the edge abutments.

In claim 10, step (c), no antecedent has been established for "the wrapped fabric overlay".

Also, in claim 10, particularly steps (c) and (d), it is arguably not entirely clear what is contemplated by the requirement for "blowing-up" the carcass/tire – in particular, note that only step (d) defines that the cords are prestressed while it is not clear why the step (c) would not also prestress the cords assuming that this is requiring internal pressure applied to the carcass. Along the same lines, it is not entirely clear whether these steps of "blowing-up" are intended to actually require some level of circumferential expansion in each case – it would seem that they are but clarification/confirmation of this would be helpful.

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 385,192 to Pirelli or FR 2,425,334 to Kleber Colombes.

EP '192 discloses a run flat tire including a radial carcass, sidewall inserts, a belt structure (6) and what can be termed a fabric underlay ply (7), this ply being described as having cords at 15-20 degrees, this being therefore within the claimed range (col. 5, lines 15+). Further, this ply is clearly wider than the belt ply (6) and can be considered to separate the belt ply from the carcass. An overlay is also suggested (col. 5, lines 31+).

Similarly, FR '334 discloses a run flat tire including a radial carcass, sidewall inserts, a belt structure (e.g. 23<sub>2</sub> in fig. 1) and an underlay (23<sub>1</sub> or at least the innermost ply thereof), the cords of the plies 23 being at 10-25 degrees (page 2, lines 9+), this suggesting values as claimed. The inner ply is further clearly wider than the upper plies and can be considered to separate the belt from the carcass. Further, the uppermost

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ply within 23<sub>2</sub> can be termed an "overlay", there being nothing in the present claims to distinguish this from any other belt ply layer.

8. Claims 1-3, 6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Willard, Jr. (US 5,511,599).

Willard, Jr. discloses a run flat tire including a radial carcass, sidewall inserts, a belt structure (e.g. upper ply 84) and what can be termed a fabric underlay ply (e.g. lower ply 82), this lower ply being described as having cords at 16-30 degrees, this being therefore within the claimed range (col. 10, lines 1-22). Further, this ply is clearly wider than the belt ply (84) and can be considered to separate the belt ply from the carcass. An overlay (86) is also suggested.

9. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 385,192 to Pirelli or FR 2,425,334 to Kleber Colombes while claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard, Jr. (US 5,511,599).

As to claim 3, the claimed materials are considered to be inclusive of well-known and conventional belt cord materials, their use in the belt plies of EP '192 and FR '334 (the innermost layers of which are being considered to be an underlay as claimed) being therefore obvious. As to claims 4-5, it is not entirely clear how the underlay relates to the "neutral bending axis" as claimed – it would seem however from their inner most location adjacent the carcass that the claimed requirement would be met or obvious from what is taught in the references. Further, it is well known and conventional in this art that a tire will typically expand slightly in the mold, such being

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therefore obvious and it being considered that this would prestress the cords as claimed.

10. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roesgen et al. (US 5,332,018) or Welter (US 4,262,726) or Iwata et al. (US 4,842,682) or Cluzel (US 5,996,662) taken in view of Oare et al. (US 5,368,082).

Each of Roesgen et al. (fig. 9), Welter (note ply 20), Iwata et al. (note ply 1) and Cluzel (note ply 20) discloses radial tires including belts and underlying low angled plies, the cords being at low angles inclusive of zero degrees. These references thus are considered to teach tires consistent with the present claims except they do not describe them as run flat tires and thus do not include run-flat inserts (assuming that this is what is meant by the term "inserts" in claim 1). It however is well known in this art to provide a tire with sidewall inserts to provide run-flat properties to the tire, the reference to Oare et al. being merely exemplary. To include sidewall inserts in tires otherwise constructed as set forth in the primary references would therefore have been obvious for the obvious advantage of providing a level of run-flat capability to the tires.

11. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roesgen et al. (US 5,332,018) taken in view of EP 335,588 to Sumitomo, Kohno et al. (US 5,054,532), GB 1,487,426 to Verbauwheide, Oare et al. (US 5,368,082) and optionally Welter (US 4,262,726).

Roesgen et al. disclose a radial tire including belts and an underlying wound low angled ply (fig. 9), the cords being at low angles inclusive of zero degrees. This reference does not however provide specific details of the formation of this structure. It



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however is first noted that well known and conventional tire building includes forming a cylindrical green carcass followed by toroidal shaping thereof (i.e. blowing-up) to join with the belt and tread followed by final shaping in the mold – to build the tire construction of Roesgen et al. by adapting such conventional building would therefore have been obvious. Following such conventional formation would thus suggest steps consistent with steps (a) and (c). As to step (d), in light of EP '588 (note esp. page 2, lines 43-48) and Kohno et al. (note esp. col. 3, lines 44-60) it is apparent that it is important, desirable and usually necessary for the tire to expand or "blow-up" in the final molding/vulcanization to properly mold the tire. To provide or allow such would therefore have been obvious, this further being expected to prestress the cords to some extent. Further, GB '426 as well as Welter, Kohno et al. and EP '588 provide evidence that the artisan understands the importance of having circumferentially oriented cords in a stressed and relative inextensible state in the final tire – otherwise they would be understood to be relatively ineffective in their reinforcement role. As to step (b) and thus winding of the circumferential ply, it is submitted that in light of the cited art, the ordinary artisan would have understood that this innermost ply would typically and normally be wound either on a drum or directly on the toroidally shaped carcass (e.g. as in GB '426) either expedient being obvious and leading to only the expected results. As to the reference to a run-flat tire, it is well known in this art to provide a tire with sidewall inserts to provide run-flat properties to the tire, the reference to Oare et al. being merely exemplary. To include sidewall inserts in tires otherwise constructed as set forth in the

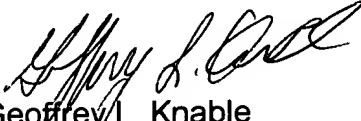
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primary reference would therefore have been obvious for the obvious advantage of providing a level of run-flat capability to the tires.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 703-308-2062. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

  
Geoffrey L. Knable  
Primary Examiner  
Art Unit 1733

G. Knable  
April 20, 2002